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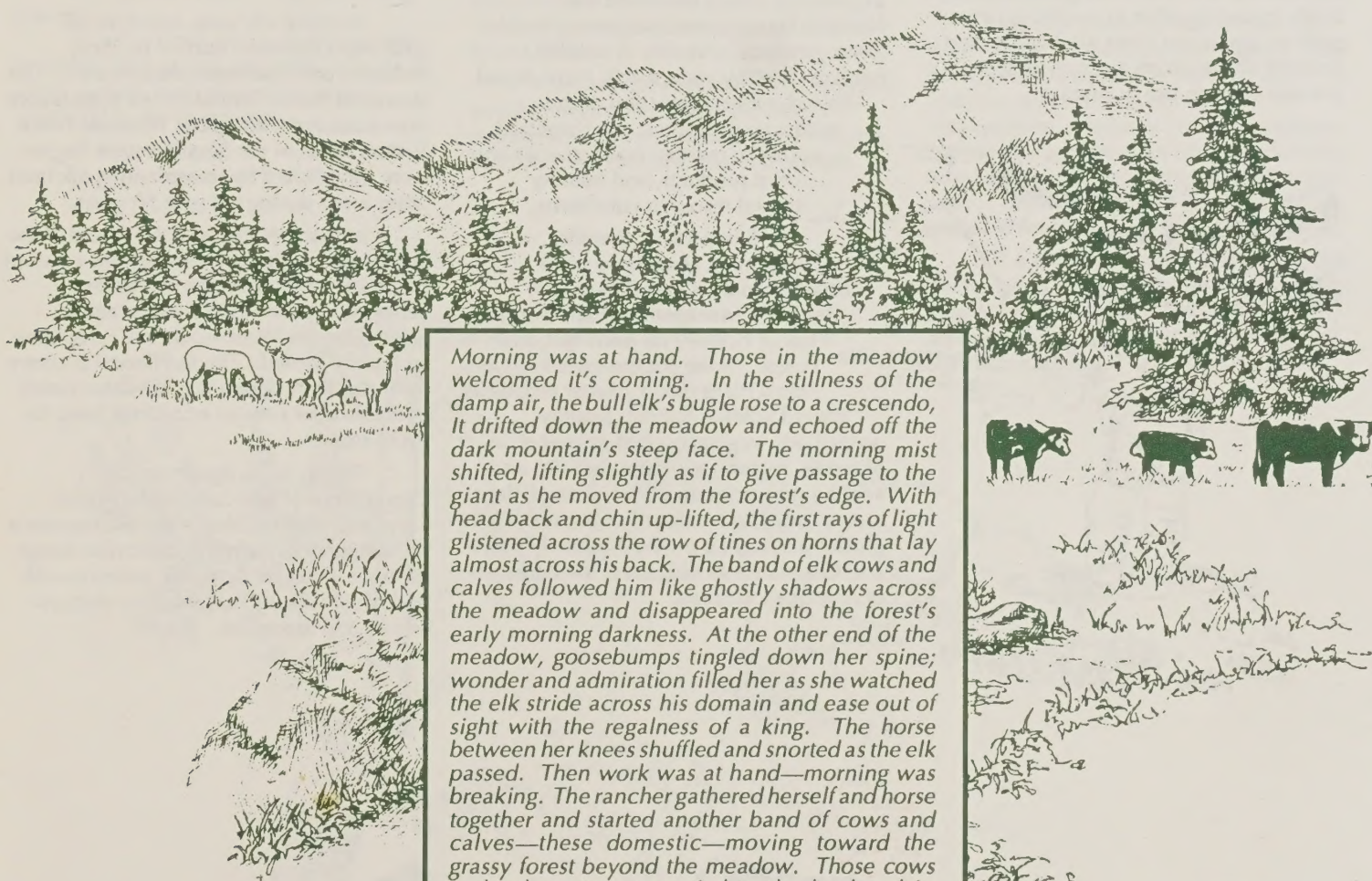


Rangeland Ecosystem Management



Elk, Cows, and Grass — The Elk/Livestock Forage Issue on the National Forests and Grasslands of the Southwestern Region

DEC 06 1993



Morning was at hand. Those in the meadow welcomed it's coming. In the stillness of the damp air, the bull elk's bugle rose to a crescendo, It drifted down the meadow and echoed off the dark mountain's steep face. The morning mist shifted, lifting slightly as if to give passage to the giant as he moved from the forest's edge. With head back and chin up-lifted, the first rays of light glistened across the row of tines on horns that lay almost across his back. The band of elk cows and calves followed him like ghostly shadows across the meadow and disappeared into the forest's early morning darkness. At the other end of the meadow, goosebumps tingled down her spine; wonder and admiration filled her as she watched the elk stride across his domain and ease out of sight with the regalness of a king. The horse between her knees shuffled and snorted as the elk passed. Then work was at hand—morning was breaking. The rancher gathered herself and horse together and started another band of cows and calves—these domestic—moving toward the grassy forest beyond the meadow. Those cows and calves, too, were tied to the land and its resources. From them came her independence. In the midst of what was once security, change now challenged the systems which for more than a hundred years had helped the nation grow. Kindred spirits—the elk and this rancher—each seeking freedom and independence yet both dependent on the renewable resources of the land. Morning is at hand.

- Carolyn Bye

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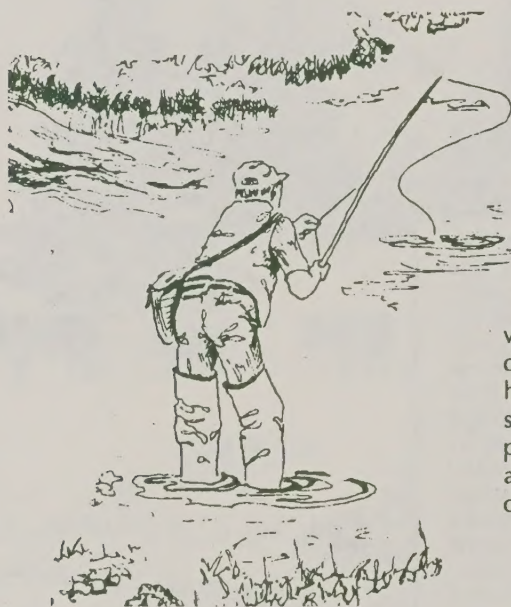
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On the Way to Today - *Management Background*

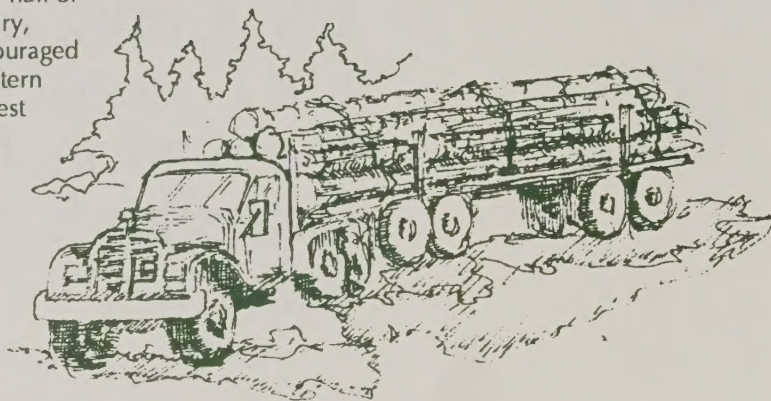
Since the Forest Service was established in 1905, both elk and cattle have been included in National Forest management programs. Early legislation guided grazing and wildlife activities and the Multiple Use and Sustained-Yield Act of 1960 affirmed forage management for both domestic and wild animals.

Past management actions, including grazing by a variety of wild and domestic animals, helped create the diverse landscapes and resource conditions that exist today. A wide variety of ecosystems containing broad internal diversity make up these landscapes; that is, there are meadows and mountains, grass, trees, and brush mixed together in a wide variety of patterns and some areas are healthy and growing while others are crowded or stressed by over-use or disease.



For more than half of the Twentieth Century, national policy encouraged development of western lands. National Forest System lands emphasized the production of forest products through the 1970's. The National Forests provided products which supported the economic and social structures of local communities as well as products which benefited the Nation. Management programs provided forest products, a variety of wildlife habitats, healthy watersheds, recreational opportunities, protection of the wilderness resource, road and trail access to recreational activities and forest products, and healthy natural resource conditions.

Since 1974, specific management goals have been established by a Forest Land and Resource Management Plan (Forest Plan or FLRMP) for each National Forest. In the Southwestern Region, Forest Plans direct greater emphasis toward wildlife habitat, healthy watersheds, vegetation and animal diversity, recreational opportunities and healthy resource conditions. Forest Plans seek to provide a balance of services and products available on the National Forests and Grasslands to help meet the demands of America's citizens.



Merriam elk were native to the Southwest but were hunted by local residents until the herds disappeared. The abundant Rocky Mountain elk populations now scattered throughout National Forest System lands in the Southwestern Region were established by transplanting elk from other areas during the past 50 years.

In many National Forest areas of the Southwestern Region, ranches are a part of the history and development of the surrounding country. Without ranch operations the West would not have been so rapidly settled. The livelihood of many rural residents depends upon these ranch operations as a major economic base for local areas.

Today, as an agency of the Department of Agriculture, the Forest Service is responsible for the maintenance of healthy ecosystems that provide forage for both wild and domestic animals—elk and livestock—as well as other resource values and amenities.



Today - Current Situation

The wide array of landscapes contained in today's National Forest System lands are capable of providing the variety of amenities, products, values, and diversity of ecosystems that people want from their National Forests and Grasslands. In specific areas the land's capability to provide all the desired values is limited.

Estimates have been made of elk population capacities—that is, how many elk the National Forests can support without damage to land and water resources. Each individual Forest Plan and each state's Game and Fish Department's Comprehensive Wildlife Plan reflects these estimates. These capacity estimates are the composite result of three different assessments of elk numbers: 1) the first assessment contains the individual estimates made by people familiar with New Mexico and Arizona elk herds and habitats, 2) the second assessment contains estimates developed by computerized habitat capability prediction models, and 3) the third assessment contains field surveys of elk herds and habitats. Used together, these three assessments provide the elk population capacities numbers.

These capacity estimates are based on vegetation conditions expected as a result of various multiple-use management actions as well as anticipated weather patterns. They indicate a range of population levels that might be expected to occur given the anticipated conditions—they are only estimates. Habitat and resource conditions must be checked on the ground to determine the actual habitat capability. Technical tools to inventory and monitor elk populations against resource conditions and capabilities are already available; however, the processes and mechanisms for accountability of elk use on the forage resource are only now being developed and established.

At the present time, when looking at broad land areas, the information

available indicates the current elk population is within the habitat capability predicted. It also appears probable that elk capacity and habitat might be out of balance in certain areas in the Sacramento Mountains within the Lincoln National Forest, some areas on the Coconino National Forest, and on other specific National Forest locations in the Southwestern Region.

Estimates of domestic livestock carrying capacities are also available. These estimates, too, are reflected in Forest Plans. These estimates have been computed by drawing together: 1) historical use information, 2) scattered forage utilization measurements, and, 3) individual estimates by people familiar with the various grazing areas. These capacity estimates are based on the level of livestock management anticipated in the future. Actual carrying capacity will be determined on an area-by-area basis as allotment management plans are prepared or updated. Processes for maintaining accountability of livestock

use of the forage resource are available through administration of the grazing permit which includes the allotment management plan and the annual operating plan.

Many rural residents depend on the ranching industry for much of their income. They feel their income and quality of life are being jeopardized by outside pressures who want a change in National Forest administration from a forest product emphasis toward emphasis on recreation opportunities, wildlife havens and very limited availability of forest products. Today's ranches, however, continue to provide both substantial economic support for local community services and products that benefit others.

There are some specific National Forest land areas where elk and livestock both concentrate. Overgrazing the forage resource occurs when elk and/or cattle: a) graze specific areas too soon in the spring, b) graze forage plants too often or too severely because the animals stay in an area too long, or c) the same area is grazed again too soon before plants have sufficient time to regrow and recover from the grazing use that previously occurred. Where such situations exist, repeated overgrazing may and often does occur. Such overgrazing damages the vegetation and soil resources of the ecosystem.

The number of such concentrated use areas has increased in recent years.

These areas are evident during dry weather conditions or when winter weather forces elk to migrate into lower elevations and graze on available forage for longer periods of time.

During such weather conditions, ranchers have willingly reduced the number of animals they graze and state game agencies have increased hunting opportunities to help reduce elk populations.



When concentrated cattle and elk use result in overgrazing of an area, people become concerned. Some people are insisting that the overgrazing solution is simple and can be resolved by reducing the number of domestic grazing animals using the area. People associated with the ranching industry, whose economic well-being and quality of life are being threatened, feel very strongly that simply reducing cattle numbers is seldom the "best" solution. They believe the needs of both domestic and wild foraging animals need to be considered.

Elk distribution cannot realistically be controlled with fencing. Reductions in the number of animals in local herds are attained by increased hunting opportunities and varied hunting seasons. Livestock distribution can be controlled with fencing and the number of domestic animals grazing can be reduced more quickly than a reduction of elk use can be

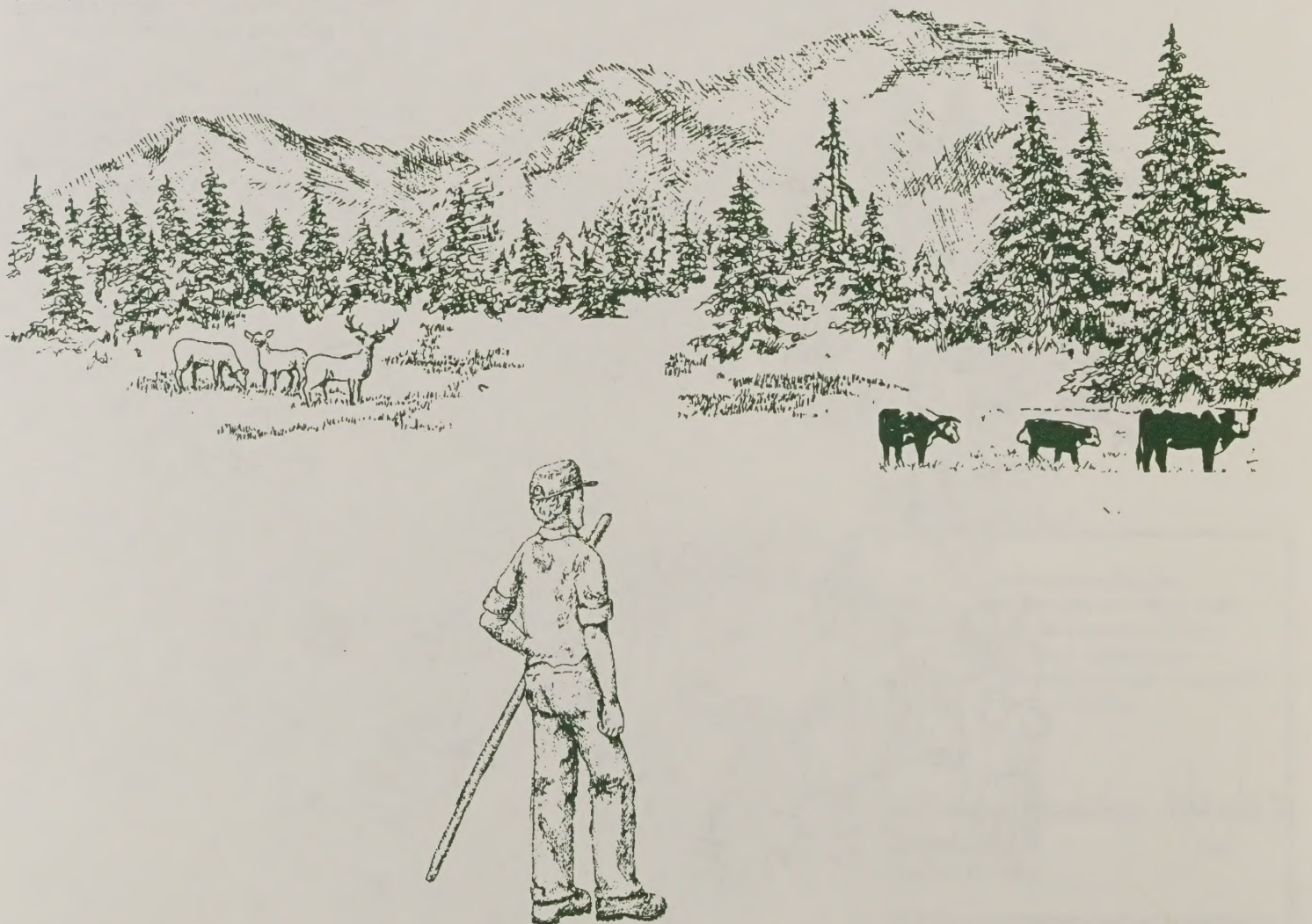
achieved. Management possibilities must address both elk and livestock grazing.

There is public controversy about grazing livestock on public lands. Some individuals and groups assert that if elk and livestock graze the same area, there is competition which results in vegetation and soil damage, therefore, livestock use of public land should be discontinued. Other groups assert their desire to continue such historical uses.

The focus of controversy is elk use versus livestock use. Formulated in this narrow context, people frequently take strong positions which assert that if elk stay, then cattle have to go or if cattle stay, then elk have to go. As public land managers, we see much broader concerns. Vegetation, soil, water, the effects of grazing on other resources, the economic

effect of various options on local communities and families, the management objectives for each particular area, and the values and concerns of the various parties concerned with each situation must—of necessity—be considered.

A Regional Action Team has been organized to implement actions called for by a plan contained in the USDA Forest Service "Livestock/Big Game Interaction Activity Review" (a cooperative effort with the International Association of Fish and Wildlife Agencies; National Cattlemen's Association; Public Lands Council; and Wildlife Management Institute). The team will present their recommendations for action to the Regional Forester.



Desired Future Condition

What will the rangeland ecosystem look like in the future? This is the picture we see for the year 1996:

Interested parties collaborate and assist in gathering information about forage growth and use to determine:

- 1) which grazing animals are using an area where vegetation management that meets the objectives and standards of the Forest Plan is not being achieved;
- 2) what time of year each area is being used by each type of animal;
- 3) how long and how severely such areas are being grazed;
- 4) how often such areas are being grazed;
- 5) what other areas might become available for forage production as a result of the various multiple use actions identified in the Forest Plan.

Interested parties collaborate to develop management alternatives and identify the intensiveness of management needed to achieve:

- 1) the desired vegetation communities;
- 2) good ground cover conditions;
- 3) good water infiltration cycles with only natural erosion occurring;
- 4) resource values;
- 5) the costs of each action proposed;
- 6) the amenities addressed in the Forest Plan.

In a collaborative manner, the game and fish departments and the land departments of Arizona and New Mexico, the Forest Service, the affected private

landowners, and other concerned groups reach out to recreation users, forest product users, the news media and others to create opportunities to enhance public awareness of forage and grazing management.

Accountability for solving resource management problems relating to the forage resource is a shared responsibility of the USDA Forest Service, the livestock operator and the game and fish departments of Arizona and New Mexico.

National Forest resource managers do what the Forest Plans say is going to be done. Results show that the National Forests are practicing vegetation management. National Forest ecosystems are healthy and are providing the diversity, amenities, products, and values interested people described as their goals for the National Forests.

The National Forests are meeting the challenge to have healthy vegetation—vegetation that meets the standards addressed in the Forest Plan—throughout the National Forests and Grasslands.



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Strategies to Move from the Issues of Today to the Desired Future Condition



National Forest resource managers work in partnership with a variety of concerned individuals, groups, organizations, and other governmental agencies to:

- practice land and animal management that results in healthy ecosystems which provide the landscape diversity, amenities, commodities and values expected from the National Forest System;

- involve the public in describing and understanding the forage and grazing concerns for each National Forest area;

- manage broad habitat areas to provide for both vegetation species diversity and vegetation for both wild and domestic animals;

- determine the various grazing animal population levels that will be authorized to achieve the vegetation management objectives of the Forest Plan;

- establish an information base which identifies each grazing animal, the length of time, frequency, and severity of their use of forage resources;

- gain recognition for and acceptance of a shared accountability role in managing the forage resources with the livestock industry and the game and fish departments of Arizona and New Mexico;

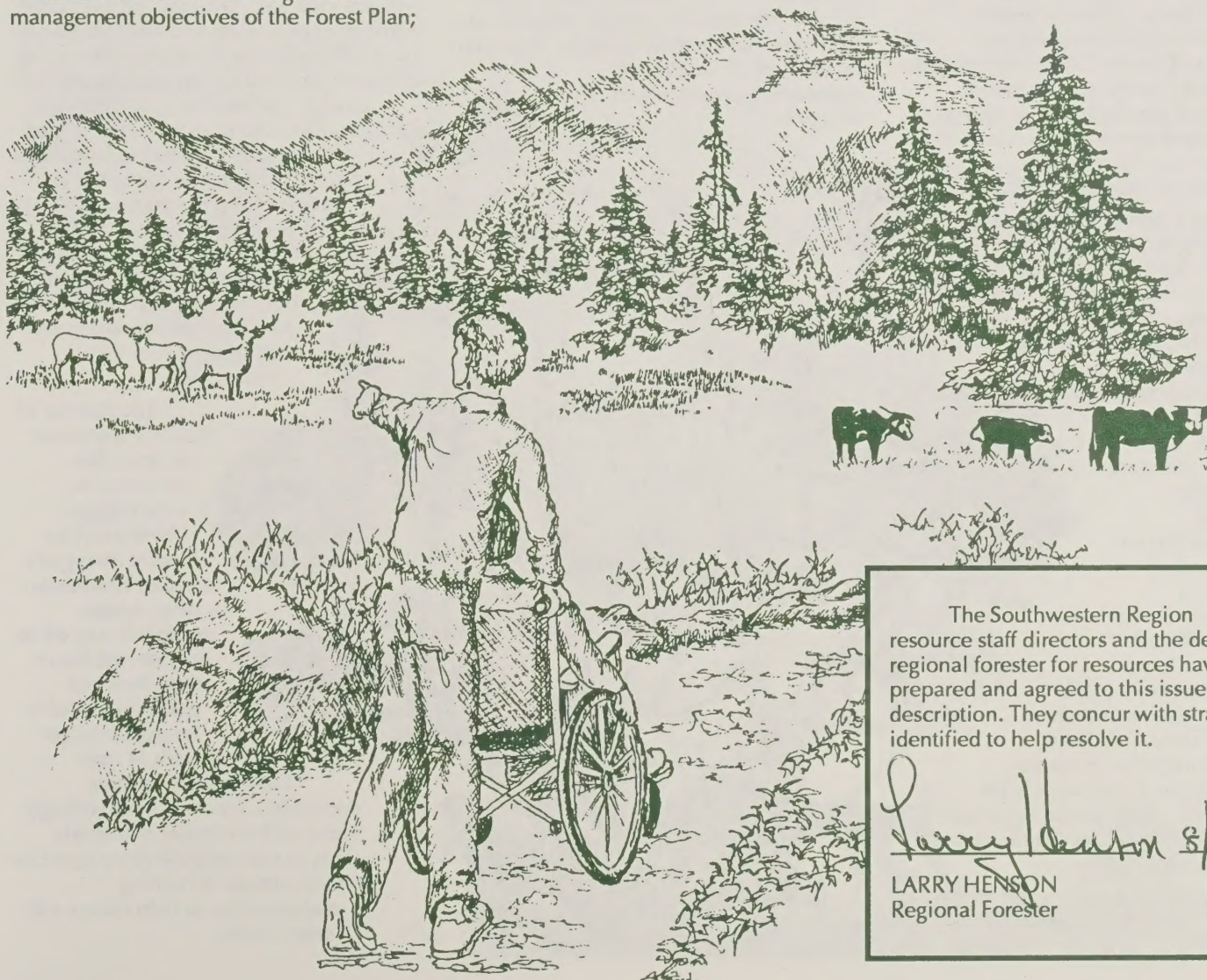
- evaluate the information base and determine land areas, livestock operations, wildlife species, and wildlife management areas to address in developing management alternatives to achieve desired resource and landscape management goals;

- assure natural events such as dry or unusual weather conditions are adequately addressed in any management alternatives;

- consider and build upon the efforts of the Action Team(s) organized by the Regional Forester (1/91) in response to the USDA Forest Service "Livestock/Big Game Interaction Activity Review" Action Plan;

- strengthen working relationships with the game and fish departments and commissions of Arizona and New Mexico to facilitate quick and appropriate management actions in different areas and different situations;

- create opportunities to enhance the awareness of forage and grazing management efforts with other forest users, partners, members of the public and the news media.



The Southwestern Region resource staff directors and the deputy regional forester for resources have prepared and agreed to this issue description. They concur with strategies identified to help resolve it.

Larry Henson 8/24/93
LARRY HENSON Regional Forester Date

